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IN THE

# Supreme Court of the United States

ILLINOIS TOOL WORKS INC. AND TRIDENT, INC.,
*Petitioners,*

v.

INDEPENDENT INK, INC.,
*Respondent.*

**On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit**

## BRIEF OF PROFESSOR F.M. SCHERER AS *AMICUS CURIAE* IN SUPPORT OF RESPONDENT

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TABLE OF CONTENTS


| | Page |
|---|---|
| TABLE OF AUTHORITIES | ii |
| INTEREST OF *AMICUS CURIAE* | 1 |
| INTRODUCTION AND SUMMARY OF ARGUMENT | 2 |
| ARGUMENT | |
| MAINTAINING THE REBUTTABLE PRESUMPTION OF MARKET POWER IN PATENT TYING CASES IS ESSENTIAL FOR COMPETITIVE MARKETS | 3 |
| A. In the Litigation Context, Courts Should Presume the Market Power of a Company Attempting to Tie a Patented Product with an Unpatented Product | 4 |
| B. Metered Tying Arrangements Normally Are Anti-Competitive and Show Market Power | 11 |
| CONCLUSION | 18 |

## TABLE OF AUTHORITIES


CASES: Page

*Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985) ..... 10

*Batson v. Kentucky*, 476 U.S. 79 (1986) ..... 10

*Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993) ..... 2

*Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992) ..... *passim*

*International Bus. Mach. Corp. v. United States*, 298 U.S. 131 (1936) ..... 11

*International Salt Co. v. United States*, 332 U.S. 392 (1947) ..... 2, 11

*Jefferson Parish Hospital District No. 2 v. Hyde*, 466 U.S. 2 (1984) ..... 2, 10, 11

*McDonnell Douglas Corp. v. Green*, 411 U.S. 792 (1973) ..... 10

*NCAA v. Board of Regents of University of Okla.*, 468 U.S. 85 (1984) ..... 10, 15

*United States v. Loew's, Inc.*, 371 U.S. 38 (1962) .. 2

MISCELLANEOUS:

Alexandra K. Pechhold, *The Evolution of the Doctrine of Equivalents in the United States, United Kingdom, and Germany*, 87 J. Pat. & Trademark Off. Soc'y 411 (2005) ..... 7

*American Intellectual Property Law Association Report of the Economic Survey 2003* (2003) ..... 7

Dietmar Harhoff, F.M. Scherer, and Katrin Vopel, *Citations, Family Size, Opposition and the Value of Patent Rights*, 32 Res. Pol'y 1343 (2003) ..... 4, 5

TABLE OF AUTHORITIES—Continued

Page

Dietmar Harhoff, F.M. Scherer, and Katrin Vopel, *Exploring the Tail of Patented Invention Value Distributions*, in *Economics, Law and Intellectual Property* 279 (Ove Granstrand, ed., 2003) ..... 4, 5

F.M. Scherer, *Firm Size, Market Structure, Opportunity, and the Output of Patented Inventions*, 55 Am. Econ. Rev. 1097 (1965) ..... 3

F.M. Scherer, *Industry Structure, Strategy, and Public Policy* (1996) ..... 11-12, 17

F.M. Scherer, *The Innovation Lottery*, in *Expanding the Boundaries of Intellectual Property* 20 (Rochelle Dreyfuss et al. eds., 2001) ..... 4

F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance* (3d ed. 1990) ..... 2, 8

Kim Peterson, *Seattle-Based RealNetworks Projects Cost of Its Microsoft Litigation*, Seattle Times, Dec. 20, 2003 ..... 7

Lauren Johnston Stiroh and Richard T. Rapp, *Modern Methods for the Valuation of Intellectual Property*, 526 PLI/Pat 171 (1998) ..... 8

Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 Colum. L. Rev. 515 (1985) ..... 11

Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. Rev. 1495 (2001) .. 7

N. Thane Bauz, *Reanimating U.S. Patent Reexamination: Recommendations for Change Based Upon A Comparative Study Of German Law*, 27 Creighton L. Rev. 945 (1994) ..... 6

TABLE OF AUTHORITIES—Continued

Page

Richard G. Mason and Beth M. Polebaum, *Buying Intellectual Property from Troubled Companies*, 779 PLI/Pat 365 (2004) ..... 8

United States Dept. of Justice & Federal Trade Commission, *Horizontal Merger Guidelines*, 4 Trade Reg. Rep. (CCH) ¶ 13,104 (1992)..... 9

Ward S. Bowman, Jr., *Patent and Antitrust Law: A Legal and Economic Appraisal* (1973) ..... 8

William A. Drennan, *Changing Invention Economics By Encouraging Corporate Inventors To Sell Patents*, 58 U. Miami L. Rev. 1045 (2004)..... 8

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## BRIEF OF PROFESSOR F.M. SCHERER AS *AMICUS CURIAE* IN SUPPORT OF RESPONDENT

## INTEREST OF *AMICUS CURIAE*

Amicus F.M. Scherer is the Aetna Professor Emeritus at the John F. Kennedy School of Government, Harvard University.[1] He has also taught at Princeton University, the University of Michigan, Northwestern University, Swarthmore College, Haverford College, the Central European University, and the University of Bayreuth. From 1974-76, he was chief economist at the Federal Trade Commission. In 2002, Pro-

[1] No counsel for a party authored this brief in whole or in part, and no person other than *amicus curiae* and his counsel has made a monetary contribution toward its preparation or submission. By letters filed with the Clerk, petitioners and respondent have consented to this filing.

fessor Scherer received the Lifetime Achievement Award from the American Antitrust Institute. This Court has cited Professor Scherer's textbook *Industrial Market Structure and Economic Performance* in numerous prior antitrust opinions, including most recently in *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 476 n.23 (1992), and *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 213–14, 227, 238–39 (1993). Professor Scherer has written extensively on the relationship between patent and antitrust laws. Indeed, both petitioners and the United States have cited Professor Scherer's work in their briefs in this case. *See* Brief for the Petitioners at 26, 38 n.13; Brief for the United States as *Amicus Curiae* at 12, 28. Professor Scherer wishes to explain why his work has led him to the conclusion that this Court should retain its rebuttable presumption of market power in patent tying cases.

## INTRODUCTION AND SUMMARY OF ARGUMENT

The empirical finding that most patents are not valuable has led many commentators to make an analytical leap and conclude that the presumption of market power in patent tying cases is nothing but a vestige of outdated antitrust law. Such a conclusion, however, is unwarranted by the data. This Court should retain the market power presumption in patent tying cases. *See, e.g., International Salt Co. v. United States*, 332 U.S. 392 (1947); *United States v. Loew's, Inc.*, 371 U.S. 38, 45–46 (1962); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 16-17 (1984). It remains an important tool in ensuring a competitive and free market for at least two reasons.

*First*, while it is true that most patents are not valuable, research into the subject of *why* particular patents are valuable has shown that patents involved in litigation are much more valuable than similar patents that were not involved in litigation. Results from a study of German patents show that patents in litigation are between 11.2 and 42.6 times more valuable than other patents, all else equal. In other words, the

fact of litigation itself is a strong signal of a patent's "appreciable economic power." *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992). The research also suggests that the more costly the proceeding, the more valuable the patent. Parties are likely to expend more resources as the value of the item over which they are fighting increases. And the value of a patent corresponds with that patent's market power. Because it is highly likely that patents involved *in litigation* are valuable and have market power, the patent tying presumption remains appropriate.

*Second*, metered tying arrangements such as the one at issue in this case are normally anti-competitive and reflect market power. Metered tying occurs when a firm sells one product, the tying good, in conjunction with a second product, the tied good, so that sales of the tied good measure the use of the tying good. Real-world case studies of the automobile industry have shown that metered tying increases costs for consumers and commonly decreases output along with consumer welfare. These findings suggest that a metered tying arrangement by itself should be sufficient to trigger a presumption of market power.

## ARGUMENT

### MAINTAINING THE REBUTTABLE PRESUMPTION OF MARKET POWER IN PATENT TYING CASES IS ESSENTIAL FOR COMPETITIVE MARKETS

The vast majority of patents are not valuable. F.M. Scherer, *Firm Size, Market Structure, Opportunity, and the Output of Patented Inventions*, 55 Am. Econ. Rev. 1097, 1098 (1965). This finding initiated a stream of research into the subject of patent value, leading some academics and practitioners to conclude that in patent tying cases, a rebuttable presumption of a defendant's market power is inconsistent with antitrust

policy.[2] Yet a close analysis of the research shows that the opposite is true: A rebuttable presumption of market power is appropriate to preserve competition.

### A. In the Litigation Context, Courts Should Presume the Market Power of a Company Attempting to Tie a Patented Product with an Unpatented Product.

1. While most patents realize modest or negligible rewards, patents involved in litigation are among the most valuable of patents. The 1965 paper establishing that the majority of patents are not valuable also demonstrated that *some* patents are highly valuable. *See* Scherer, *Firm Size*, at 1098. Relatively recent publications have examined the factors separating high-value and low-value patents through a study of the German patent system. *See, e.g.*, Dietmar Harhoff, F.M. Scherer & Katrin Vopel, *Exploring the Tail of Patented Invention Value Distributions*, in *Economics, Law and Intellectual Property* 279 (Ove Granstrand, ed., 2003); Dietmar Harhoff, F.M. Scherer, & Katrin Vopel, *Citations, Family Size, Opposition and the Value of Patent Rights*, 32 Res. Pol'y 1343 (2003).[3]

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[2] In its *amicus* brief, the United States quotes an article by Professor Scherer in support of its argument that "a market power presumption . . . may constitute a drag on innovation." Brief of United States as *Amicus Curiae* at 28 (citing F.M. Scherer, *The Innovation Lottery*, in *Expanding the Boundaries of Intellectual Property* 20 (Rochelle Dreyfuss et al. eds., 2001)). This article, however, does not support the proposition cited in the United States' brief. The article refers to behavior by *individuals*, not behavior by well-established *corporations*. *See* Scherer, *Innovation Lottery*, at 20.

[3] The authors chose to study the German patent system because its steep annual fee maintenance structure made Germany the best country to single out the most valuable patents for detailed inquiry. A patent holder that paid maintenance fees for the 18-year period was likely see the invention as a relatively valuable one with enduring advantages. Among the

The authors found that the most important factor in identifying a valuable patent was whether the patent had been involved in litigation.[4] Patents successfully withstanding a challenge by another party were *11.2 to 42.6 times more valuable* than patents with other similar characteristics (such as citations, foreign applications, etc.). *See* Harhoff, Scherer & Vopel, *Citations*, at 1358–59. At the time of the study, Germany allowed challenges to patents through two means—opposition proceedings and nullification proceedings. Patents that were challenged in but survived an opposition proceeding were 11.2 times more valuable than other similar patents; those patents that were challenged in but survived a nul-

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10,780 eligible patents studied, only 1,431 (13.3%) were renewed to full term. After the patents had run to full term, the authors of the study asked the patent holders: What was the price at which they would have been willing to sell their patent near the beginning of the patent term, assuming foreknowledge of how the patent's future profitability would unfold? The study found that even for this subset of *relatively valuable patents*, a skewed distribution still existed between high-value and low-value patents. Of the 772 patent holders who responded to the questionnaire (58.3% of the 1,325 patents whose owners could be traced), only 13% had a value of more than $2.5 million (using the year 2000 exchange rate between German marks and dollars). And even in this highest-value category, several patents had values 10 to 30 times the $2.5 million threshold. *See* Harhoff, Scherer & Vopel, *Exploring the Tail*, at 288.

[4] The authors also found that four other factors contributed to identifying the value of patents, although none was as powerful as the litigation effect. *First*, the authors found, unsurprisingly, that patents renewed to full term were much more valuable on average than the run-of-the-mill patent. *Second*, patents on which applications were filed in a considerable number of nations were more valuable than patents for which applications were filed only in a single nation. *Third*, although not predictable at the time of application, patents cited subsequently in many other patents were more valuable than sparsely-cited patents. *Fourth*, patents in the chemical fields listing many citations to prior patents and to prior scientific literature were significantly more valuable than patents with few such citations. *See* Harhoff, Scherer & Vopel, *Citations*, at 1357–58.

lification proceeding were 42.6 times more valuable, all else equal.[5]

This "litigation effect" has direct relevance to whether this Court should maintain its rebuttable presumption in patent tying cases. In the United States, absent intervention by a government antitrust agency, independent producers or customers of the tied good typically initiate complaints about tying arrangements. Such parties are analogous to the firms in Germany that challenged the validity of patents in opposition or nullification proceedings.

The German results not only show that a patent that is the subject of challenge typically is worth significantly more than other patents, they also show that the value of the challenged patents ordinarily *rises* as the cost of the challenge grows more expensive. Thus, in a German opposition proceeding, the cost to the firm filing the opposition was approximately DM 20-50,000, or $10-$25,000.[6] The cost of a nullification proceeding was in excess of DM 100,000, or $50,000. *See id.* at 1352.[7]

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[5] At the time of the study, a party had three months from the time of pregrant publication to file an opposition. The German Patent Office decides opposition proceedings, with a right of appeal to the Board of Technical Appeals of the German Patent Office. A nullification proceeding, by contrast, is an adversarial one that occurs in front of the Federal German Patent Court, with the losing party paying costs. The burden of proof for the challenger is also higher in nullification proceedings. A party may appeal a nullification proceeding to the German Supreme Court. For an in-depth description of opposition and nullification proceedings under German law, *see generally* N. Thane Bauz, *Reanimating U.S. Patent Reexamination: Recommendations For Change Based Upon A Comparative Study Of German Law*, 27 Creighton L. Rev. 945, 961–75 (1994).

[6] All references to the price in dollars use the approximate 2-1 exchange rate between German Marks and U.S. Dollars that existed in the year 2000.

[7] The difference between the administrative procedure and the judicial procedure most likely accounts for the difference in cost between the op-

These costs are small compared to the expense a plaintiff must incur to challenge a patent or a tying arrangement. In the United States, "the estimated median litigation costs for each party" in a patent case are $500,000 when less than $1 million is at risk, $2 million with $1-$25 million at risk, and "upwards of $4 million when there is more than $25 million at risk." Alexandra K. Pechhold, *The Evolution of the Doctrine of Equivalents in the United States, United Kingdom, and Germany*, 87 J. Pat. & Trademark Off. Soc'y 411, 436 (2005) (citing *American Intellectual Property Law Association Report of the Economic Survey 2003*, at 93 (2003)). Indeed, these numbers may well "understate the costs of patent litigation somewhat because extremely expensive cases aren't fully accounted for by the median number." Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. Rev. 1495, 1502 n.29 (2001). And the costs of litigating the most complex antitrust cases can be just as great. *See, e.g.*, Kim Peterson, *Seattle-Based RealNetworks Projects Cost of Its Microsoft Litigation*, Seattle Times, Dec. 20, 2003, at C1 (stating that RealNetworks' anticipated cost of its antitrust lawsuit against Microsoft, which includes allegations of tying, is $12 million per year, or *$1 million per month*).

The willingness of plaintiffs in American judicial proceedings to expend such large sums demonstrates that the patents at issue are among the few patents with truly significant value. *Cf.* Lemley, *supra*, at 1501 ("Of the roughly two million patents currently in force, only a tiny number are the basis for lawsuits each year. About 1,600 patent lawsuits are

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position and nullification proceedings. Moreover, the difference in incentives for a challenger to bring a riskier and more costly action may explain why patents surviving a nullification proceeding are worth more than patents surviving an opposition challenge.

filed each year . . . ."). And the value of a particular patent corresponds to that patent's economic power:

> The essence of the patent privilege is the right to exclude others from making, using, or selling that which is covered by the patent during its life. The value of this right depends upon how valuable the product or process is to users. This in turn depends upon the closeness of substitute products or processes, patented or unpatented, which are available. When a patented product or process is not "better" in this sense no return to the patentee is possible. Many patents are economically useless. On the other hand, when a patent is "good enough," and when its substitutes are remote, it may provide the patentee a very substantial return. It may give the patent holder enough economic power to substantially "control the market" in the field in which the patent applies. But "control of the market," an invidious description in the absence of a legal monopoly, when a patent is involved, is merely a description of the patent's value.

Ward S. Bowman, Jr., *Patent and Antitrust Law: A Legal and Economic Appraisal* 53 (1973). *See also* F.M. Scherer & David Ross, *Industrial Market Structure and Economic Performance* 622–23 (3d ed. 1990). *Cf.* William A. Drennan, *Changing Invention Economics By Encouraging Corporate Inventors To Sell Patents*, 58 U. Miami L. Rev. 1045, 1123 (2004) (studying reasonable royalties and concluding, consistent with the German study, that "while most patents create no market power, it seems likely that a patent holder who would be able to sell his or her patent for a substantial amount would have market power"); Richard G. Mason & Beth M. Polebaum, *Buying Intellectual Property from Troubled Companies*, 779 PLI/Pat 365, 402 (2004) ("The more monopolistic power the intellectual property confers, the higher the value.") (citing Lauren Johnston Stiroh and Richard T. Rapp, *Modern Methods for the Valuation of Intellectual Property* 526 PLI/Pat 171 (1998)). Thus, while it is true that most pat-

ents are not valuable, patents involved in litigation are highly likely to be worth the largest amount of money and confer significant power to exclude.

2. Because of the likelihood that a patent involved in litigation has substantial value and market power, this Court should maintain a rebuttable presumption of market power in patent tying cases. This presumption is not an anachronistic relic of antiquated antitrust analysis. Rather, it remains vital in ensuring vibrant competition and in promoting the goals of the antitrust laws.

Petitioners note the "enormous burden" to complete a "full-blown antitrust market analysis." Pet. Brief. 32–33. Yet this same point applies with even more force to the party attempting to challenge a tying arrangement. Given the substantial probability that the patent is valuable, the defendant is in a much better position to introduce evidence about the nature of the market—its structure, the potency of substitutes, or other factors demonstrating lack of market power. It is the defendant who must make the difficult decisions about the prices at which to offer the tying and tied products based upon market conditions. Placing the initial burden on the defendant allows the party with the best knowledge of the market to explain why its case is the rare one where a challenged patent is not valuable.

A proper rule should permit the patent holder to rebut the presumption by proving that the patent does not confer value or market power. The patent holder, for example, should be able to show that it lacks market power in the sense articulated in the Department of Justice-Federal Trade Commission Horizontal Merger Guidelines. *See* United States Dept. of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines*, 4 Trade Reg. Rep. (CCH) ¶ 13,104 (1992). A patent holder might also illuminate any compelling efficiency advantages that the firm derives from the tie, again looking to the DOJ-FTC Merger Guidelines for guidance. Such a presumption in

the patent tying context is consistent with other antitrust cases. *See, e.g., Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 604–05, 608–11 (1985) (explaining that defendant must produce evidence of valid business justification to explain pattern of conduct); *NCAA v. Board of Regents of Univ. of Okla.*, 468 U.S. 85, 110 (1984) (stating that a "naked restraint on price and output requires some competitive justification even in the absence of a detailed market analysis").

The value of patents involved in litigation suggests that at the least, a plaintiff attempting to prove a patent tying arrangement should not be required to conduct a "full-blown" market analysis. Instead, a relaxed evidentiary burden could apply at first, allowing the plaintiff to meet its initial burden by pointing to signs of market power such as the value of the patent itself or the way in which the firm implements the tie. Once the plaintiff has met this initial threshold, the burden would shift back to the defendant to disprove market power. *Cf. Batson v. Kentucky*, 476 U.S. 79, 97 (1986) (burden shifts to government for neutral explanation of conduct when defendant makes *prima facie* showing of discriminatory jury selection); *McDonnell Douglas Corp. v. Green*, 411 U.S. 792 (1973) (burden-shifting in Title VII context when plaintiff makes a *prima facie* showing).

The simpler rule, however, is to keep the presumption intact. Because it is highly likely that the challenged patent is valuable and has "appreciable economic power," *Eastman Kodak*, 504 U.S. at 464, placing the initial burden on the defendant squares with economic reality. In short, because "the existence of market power is probable" in patents involved in litigation, this Court should not jettison its longstanding presumption of market power in patent tying cases. *Jefferson Parish Hospital District No. 2*, 466 U.S. at 17.

### B. Metered Tying Arrangements Normally Are Anti-Competitive and Show Market Power.

Metered tying occurs when a firm sells one product, the tying good, in conjunction with a second product, the tied good, so that "sales of the tied good act as a meter that measures use" of the tying good. Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 Colum. L. Rev. 515, 541 (1985). In other words, metered tying allows a firm to sell the tying good for the same price to both heavy and light users while reaping extra profit from heavy users due to the above-market price the firm charges on the tied product. Such a situation is most common when the tying product is a machine and the tied product is necessary for the functioning of the machine, such as tabulating machines and punch cards, *see International Bus. Mach. Corp. v. United States*, 298 U.S. 131 (1936), salt-dispensing machines and salt, *see International Salt Co. v. United States*, 332 U.S. at 392, copiers and copier repair, *Eastman Kodak*, 504 U.S. at 451, or a case such as this one, inkjet printheads and inks.

This Court has condemned metered tying as a form of price discrimination arising from the lifetime cost of the product because "purchasers with greater needs for the tied item make larger purchases and in effect must pay a higher price to obtain the tying item." *Jefferson Parish*, 466 U.S. at 15 n.23; *id.* at 36 n.4 (O'Connor, J., concurring in the judgment) ("Tying may also help the seller engage in price discrimination by 'metering' the buyer's use of the tying product."). Research into metered tying shows that the Court's conclusion is the correct one. The practice reduces output and decreases overall consumer welfare.

A real-world case study of the automobile parts industry supports the conclusion that metered tying adversely affects competition. *See* F.M. Scherer, *Industry Structure, Strategy,*

*and Public Policy* 308–11 (1996).[8] The automobile parts industry provides an example of metered tying because, due to the high cost of producing stamping dies, consumers traditionally were tied non-contractually to the original equipment manufacturer when they needed replacement crash parts. Therefore the automobile companies faced relatively inelastic demand for their factory-warranted crash parts. In other words, the number of parts a consumer buys would not change much even as the auto manufacturer increased the price of those parts. This relatively inelastic demand permitted the companies to charge prices far above marginal cost. Moreover, because some drivers use their cars much more than others, and some have more accidents than others, the car parts market allowed metering between light users and heavy users.

The following page presents a diagram of the market for the tying product—the car market in this real-world case study, equivalent to the printhead inkjet market in the case at bar. In the car market, demand is much more elastic (price-sensitive) than in the car parts market. Because the car market is relatively sensitive to price, the profit-maximizing price is only about 20% above marginal cost. This profit-maximizing price is represented in Figure 1 at $P_{C1}$. Realizing, however, that it can sell a greater quantity of lucrative crash parts [ink] if it sells more cars [printheads], the auto maker has an incentive to reduce its car price below the profit maximizing price of $P_{C1}$ to the lower price of $P_{C2}$. This decrease from $P_{C1}$ to $P_{C2}$ expands the quantity of cars sold by 45%, represented in the diagram by the shift from $Q_{C1}$ to $Q_{C2}$.

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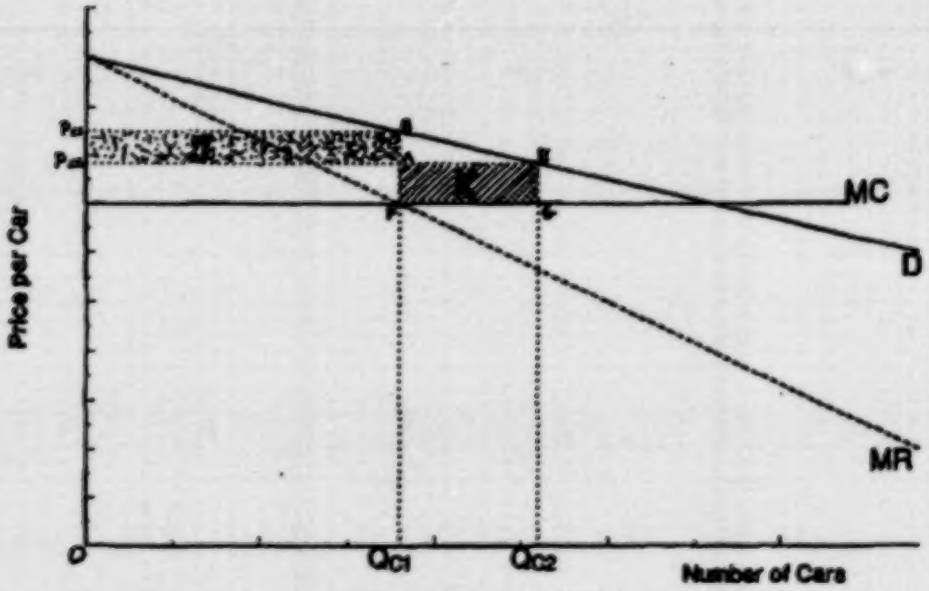
[8] This paragraph, the following paragraphs, and the diagrams stem from the same source.

**Figure 1**

**THE TYING PRODUCT (CARS)**




The reduction in price from $P_{C1}$ to $P_{C2}$ causes a small loss of profits in the car market, equal to Box J minus Box K. But the decrease in price to $P_{C2}$ has a dramatic effect on the market for the tied good, car parts in this example and ink in the case at bar. As the quantity of cars [printheads] sold increases, the demand for car parts [ink] also increases. The demand for car parts [ink] increases because when the auto company sells more cars [printheads], consumers need more car parts [ink].

Figures 2 and 3 on the next page show the market for the tied product, car parts. These two figures illustrate the combined effect of tying on the tied good market [cars/ink], both for light users (Figure 2) and heavy users (Figure 3). The Figures are set out separately to demonstrate how the firm extracts greater profits from heavy users than it does from light users.

The decrease in price from $P_{C1}$ to $P_{C2}$ in the tying market (as shown in Figure 1) increases the demand for the tied good

[car parts/ink] and therefore shifts the demand curve in the tied good market.

**Figure 2**

**TIED GOODS (PARTS) – LIGHT USERS**

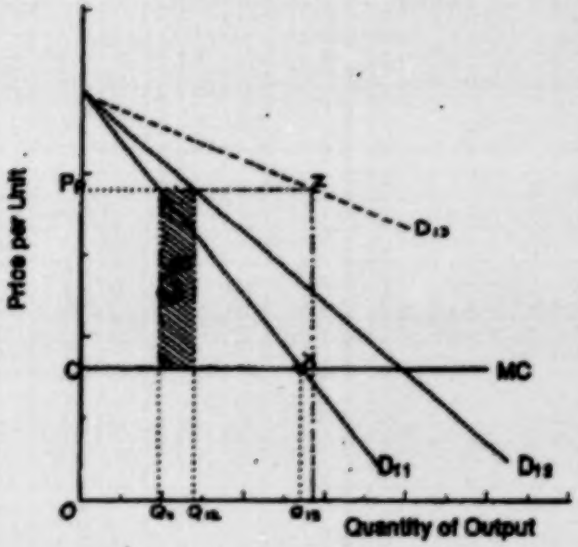
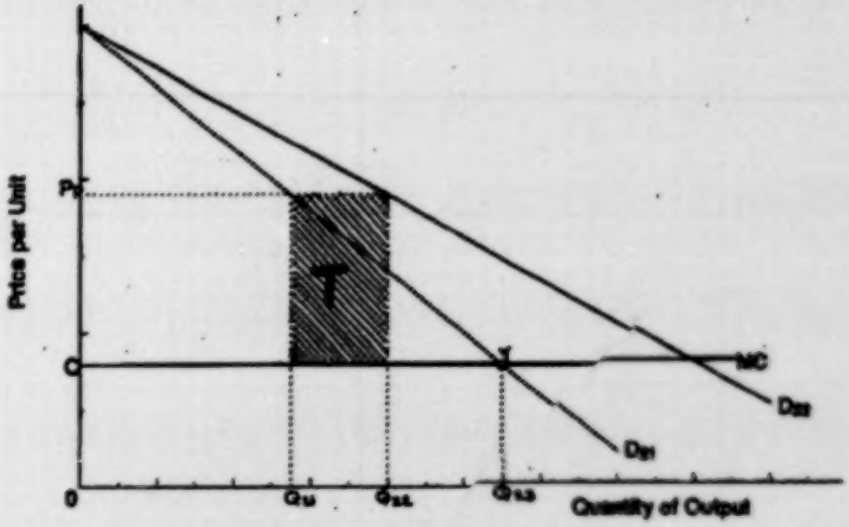



**Figure 3**

**TIED GOODS (PARTS) – HEAVY USERS**




Figures 2 and 3 show this increased demand in the tied good market by the shift in the demand curve from $D_{11}$ to $D_{12}$ for light users (Figure 2) and from $D_{21}$ to $D_{22}$ for heavy users

(Figure 3). The demand curve in both instances shifts to the right (*i.e.*, increases) by 45%—the same percentage as the Figure 1 increase in quantity of cars sold as a result of the price decrease for automobiles.

The price reduction in the car [printhead] market has the corresponding effect of increasing profit for the firm in the car parts [ink] market. The increase in profit is the sum of Box S in the light user market plus Box T in the heavy user market. This increase in profit from car parts [ink] sales is much greater than the sacrifice of profits (Box J minus Box K) in the car [printhead] market. *Cf. Kodak*, 504 U.S. at 471 ("[T]here could easily be a middle, optimum price at which the increased revenues from higher priced sales of service and parts would more than compensate for the lower revenues for lost equipment sales."). The result of the auto price reduction is that more autos [printheads] are sold, which in turn means that the firm sells more parts [ink]. It is this increase in quantity sold that has led some commentators to attribute "efficiency" gains to metered tying.

A fundamental problem exists, however, in associating any efficiency gain with metered tying: The "efficiency" is due primarily to the firm's market power in the tied market. In the car parts example, the price is more than double marginal costs. If nothing else then, any increase in "efficiency" occurs only at the expense of the consumer and of lower prices. *Cf. NCAA v. Board of Regents*, 468 U.S. at 107 ("Congress designed the Sherman Act as a consumer welfare prescription. A restraint that has the effect of reducing the importance of consumer preference in setting price and output is not consistent with this fundamental goal of antitrust law.") (internal quotation marks and citations omitted).

Allowing competition in the tied market [car parts/ink] demonstrates how a metered tying arrangement distorts the market. If competition were feasible in the car parts [ink] market, the price would fall from $P_P$ toward marginal cost,

represented by the line MC in Figures 2 and 3. Because the auto manufacturer could not make lucrative profits in a competitive market for car parts [ink], the company would not have the incentive to reduce its price in the car [printhead] market from $P_{C1}$ to $P_{C2}$. Consequently, the demand for the tied good [car parts/ink] would not shift, remaining at $D_{11}$ for light users and $D_{21}$ for heavy users. Thus, in a competitive car parts [ink] market, the equilibrium would be at point X in the light user segment and at point Y in the heavy user segment. Figures 2 and 3 show the output *(i.e.*, quantity) at this equilibrium at points $Q_{13}$ and $Q_{23}$, respectively. These quantities produced by a free market are ***higher*** than with tying. (Compare $Q_{13}$ with $Q_{12}$, and $Q_{23}$ with $Q_{22}$.).[9]

Moreover, the "efficiency" argument in favor of metered tying overlooks two other points. *First*, purchasers of the tying good [cars/printheads] may foresee that the firm will subject them to higher prices, or they may not. *Cf. Kodak*, 504 U.S. at 473 ("Lifecycle pricing of complex, durable equipment is difficult and costly. . . . Much of this information is difficult—some of it impossible—to acquire at the

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[9] A case where output might increase through a tying arrangement is if a tremendous increase in the quantity sold of the tying good [cars/printheads] caused a correspondingly huge demand increase for the tied good [car parts/ink]. Such an event would cause the demand curve to shift massively to the right, as illustrated by line $D_{13}$ of Figure 2. This huge shift in tied good demand would cause output to increase above the level that would prevail in a competitive market. But the increase in output would come at the expense of consumers, who would continue to pay above-market prices for the tied good. Moreover, ignoring the increased burden on consumers, even this example cuts decidedly in favor of a presumption against metered tying. The firm implementing the tying scheme is the one best-positioned, indeed perhaps the only one with the information, to know whether tying is output-enhancing. Placing the burden on the tying firm would allow the party with the best information to demonstrate, if it can, that its case is the anomalous one in which a tie causes an increase in output as compared to outputs achieved in a competitive market.

time of purchase."). If they have good foresight, then the demand for the tying good [cars or printheads] will be different from the illustration of the car market presented here. The demand of a consumer with perfect information depends not only upon the price of a car or printhead, but on the anticipated price of the car parts or ink. Thus, the higher the anticipated price of the tied good, the more demand would *decrease* in the car or printhead market. The consumer would recognize that the price of the tying good is simply a small down payment on the total cost of the desired service. The effect of foresight consequently cuts *against* any output-enhancing tendencies of tying.

If, on the other hand, the more likely scenario occurs and consumers do not have perfect information about the future price of the tied good, they will make their purchases on the basis of perceived prices that are lower than the total prices they will actually pay. In other words, the tying firm sells more and enjoys more profit only because the consumer is misinformed. And it is no "efficiency" gain to capitalize on a situation where a consumer lacks the necessary information vital to the accurate functioning of a free market. Consequently, with few exceptions, the effect of tying is to reduce output, reduce consumer welfare, or both.

*Second*, the consumers' expenditure of time and resources in attempting to avoid the tie (*i.e.*, in their quest to find a lower price) results in other inefficiencies. For example, in the automobile parts market, the above-market prices charged by automobile manufacturers for car parts during the 1970s and 1980s caused a thriving new industry to develop: chop shops, where thieves would steal cars, disassemble them into their constituent parts, and then sell them at bargain prices to body repair shops. *See* Scherer, *Industry Structure*, at 311. Thus, the sale of tied goods such as car parts or ink can induce costly evasion.

In this case, the mere fact that petitioners are tying printheads to ink in a metered fashion shows the "appreciable economic power" of the firm. *Kodak*, 504 U.S. at 464. Moreover, contrary to the assertions of petitioners and the United States, *see* Pet. Brief at 27–32; Brief of United States as *Amicus Curiae* at 29 & n.23, the type of tying arrangement at issue here increases costs for consumers while customarily decreasing output and consumer welfare. Consequently, this Court should maintain its presumption of market power at least in cases such as this one, where the patent holder ties a consumer's purchase of a patented good with the purchase of an unpatented one.

## CONCLUSION

For the foregoing reasons, the judgment of the court of appeals should be affirmed.

Respectfully submitted,

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